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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,591	09/29/2003	Shin Koike	243161US0	9971

22850 7590 10/17/2006

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,591

Applicant(s)

KOIKE ET AL.

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 6-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-4 and 6-21 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 1, 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kao Corporation, EP 0 402 090 A2. Kao Corporation (abstract; page 1, line 4; page 2, lines 35 et seq; page 3, lines 4-8; page 4, lines 8-11, 23-34, and 46-49, particularly lines 33 and 48; page 7, lines 3 et seq; examples and claims) disclose oil-in-water emulsions employing diglycerides at a concentration reading on the claimed range of 30 to 90% by weight of the oil phase and having unsaturated fatty acids in a concentration of 70 % or more, preferably 80 % or more of the diglycerides. Kao Corporation (page 4, line 33) discloses the incorporation of sugar and (page 4, line 48) clearly contemplates foams by the disclosure of at least whipped cream.

Kao Corporation (column 3, lines 6-8) discloses the preferred use of di-cis-unsaturated diglycerides at a concentration of 70 % or more. Kao Corporation (abstract; page 2, lines 42-45; page 4, lines 23-34; page 6, lines 37 et seq; examples and claims) disclose the use of emulsifiers and proteins to improve taste and stability.

The particle size and the specific gravity would have been expected since the particle sizes are conventional for edible emulsions and the gravity is at or near the

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upper end-point of the claimed range. Any whipped air, which is clearly disclosed by the characterization as whipped cream, would clearly reduce the specific gravity with the claimed range. The claimed *trans* fatty acid content would have been inherent to the compositions since non-hydrogenated oils are commonly found in the *cis* form and the Kao Corporation references discloses the preferred high concentration of the *cis* form. The limitation of 0 to 20% saturated fatty acids is clearly found in the Kao Corporation disclosure (page 4, lines 12-15 and Table 1) of the use of natural vegetable oils and their mixtures including rapeseed oil (i.e., canola, SAFA ~ 6-7%) and corn oil (SAFA ~ 13 %). Other vegetable oil contemplated by Kao (page 4, lines 12-15) include safflower (SAFA ~ 6 %), olive oil (SAFA ~ 14), soybean oil (SAFA ~ 14 %), sunflower oil (SAFA ~ 11 %), and sesame oil (SAFA ~ 14 %) among others.

To the extent the Kao reference differs from the claims in the sufficiency of disclosure of a single composition explicitly setting forth each of the claimed limitations or the *trans* fat content, Kao discloses oil-in-water emulsions formed with an edible oil advantageously having rich flavor and lower fat content. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the components within the teachings of the Kao reference for the advantageous use in making edible products.

It is well known in the food art to whip air into compositions to reduce the cost and calories thereof. Applicants have not shown the compositions commensurate in scope with the claims to be patentably distinguished and/or unobvious in view of the Kao reference.

The particular fats and glycerides are disclosed at page 8, lines 6 et seq of the Kao reference.

6. Claims 1-4 and 6-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kao Corporation, EP 0 402 090 A2, in view of Ono et al, US 5,962,058, and Licthenstein et al, *Effects of Different Forms of Dietary Hydrogenated Fats on Serum Lipoprotein Cholesterol Levels*, The New England Journal of Medicine, Vol 340, (6/24/1999) No. 25, pp 1933-1940. Kao discloses edible oil-in-water emulsions as set forth above and incorporated herein. Kao Corporation (abstract; page 2, lines 35 et seq; page 3, lines 4-8; page 4, lines 8-11, 23-34, and 46-49, particularly lines 33 and 48; page 7, lines 3 et seq; examples and claims) disclose oil-in-water emulsions employing diglycerides at a concentration reading on the claimed range of 30 to 90% by weight of the oil phase. Kao Corporation (page 4, line 33) discloses the incorporation of sugar and (page 4, line 48) clearly contemplates foams by the disclosure of at least whipped cream. The Kao products are characterized as oil-in-water emulsions formed with an edible oil advantageously having rich flavor and lower fat content useful in a number of edible products including whipped creams.

To the extent the Kao reference differs from the claims in the sufficiency of disclosure of a single composition explicitly setting forth each of the claimed limitations, Ono et al discloses foamable emulsions for whipped products employing oils having a high degree of saturated fatty acid components. Ono et al further exemplifies the use hardened oils, which are known to produce undesirable trans fats.

Lichtenstein et al teaches the *cis* fatty acid configuration is desirable to the *trans* forms since the *trans* forms have detrimental effects on the serum lipoprotein cholesterol levels.

These references are combinable because they teach whipped edible products. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ the edible oil formulations of Kao in the formulations of Ono et al for their advantageous low fat and advantageous unsaturated *cis* fats.

Response to Arguments

7. Applicant's arguments filed August 1, 2006 have been fully considered but they are not persuasive.

8. Applicants (pages 6 and 7) assert the references do not disclose the saturated fatty acid content (SAFA) now claimed as 0-20 % by weight. This has not been deemed persuasive since Kao Corp. specifically discloses the use of vegetable oils having the required SAFA content in natural form. Said property is inherent to a number of the oils specifically exemplified and numerous oils specifically mentioned in the Kao Corp. reference.

9. Applicants (page 7-8) assert example 10 of Kao Corp. cited by the examiner contains greater than 20 % bw of saturated fatty acids. The whole references must be considered for what they reasonably disclose and not just the working examples. *Trans* and thus saturated fatty acids are recognized in the art as undesirable. The use of non-hydrogenated, i.e., non-hardened fatty acids are clearly envisaged or at least would

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have been suggested in the prior art as shown in the above references for the advantages or reducing serum lipoprotein cholesterol levels.

10. Applicants (page 9) assert Ona et al fails to describe the claimed foam having 0-20 % bw of saturated fatty acid and does not remedy the Kao Corp. reference. This has not been deemed persuasive since the Ona et al reference is cited to show the formation of sweetened foams from oil-in-water emulsions employing sugar. Further Ona et al discloses the use of saturated diglycerides to achieve heat resistance, which is not a disclosed desire of applicants. The Ona et al reference teaches the conventional use of sugars and sugar alcohols in foamed (i.e., whipped emulsions).

11. Applicants (page 9) assert Lichtenstein et al merely discloses the preference of the cis rather than trans form of unsaturated fatty acid to lower serum lipoprotein cholesterol levels. Lichtenstein et al (page 1938, Discussion) further teaches the desire to reduce the saturated fat content and suggest substituting soybean oil (SAFA ~ 14 % and zero trans fat) where possible.

Applicants arguments regarding the Ono et al and the Lichtenstein et al references furthermore have not been deemed persuasive since said references are relied on for their teachings of the desirability for sugar as a flavoring in food compositions related to the Kao compositions and Lichtenstein et al further teaches the desirability for particular types of fats having advantageous nutritional value.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are directed to oils low in saturated fats. US '348

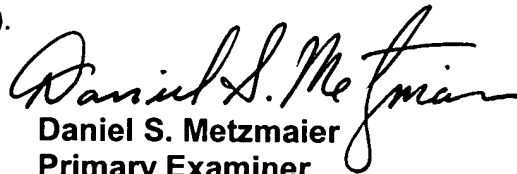
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(column 3, lines 65 et seq) and '161 (column 3, lines 63 et seq) both cite EP 402090, Kao Corporation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM